

# Product Data Sheet

## Amphenol RADSOK® SurLok™ Non-Environmental Connectors for Power Distribution Applications

The Metal SurLok™ is a field installable, high reliability alternative to common compression lugs. An industry standard U-Indent/Clamshell or 4-indenter crimp tool may be used to perform the crimp termination on the wire thus eliminates the need of purchasing special torque tools.

Amphenol Metal SurLok™ is designed as an alternative to the bolt-on compression lugs while meeting or exceeding the electrical performance, eliminating tools and increasing reliability.

Additional features include the RADSOK® High Amperage Socket Contact Technology which utilizes the high tensile strength properties of the stamped and formed, high conductivity alloy grid to produce the low insertion force while maintaining large conductive surface area.

The Metal SurLok™ is available in a variety of common wire sizes and use in Medical, Heavy Equipment, Process Control, Rail/Mass Transit and Telecom/Infocom markets. Any applications that use high current, frequently plugged and unplugged cables or a “plug and play” setup would be an ideal “fit” for the Metal SurLok™ solution.

Additional benefits of the RADSOK® Metal SurLok™ include:

- Easy Field Install – Crimp with Standard Color-coded Dies (U-die and 4 Indenter)
- Integral Locking Feature
- RoHS Compliant
- High Current Rating
- High Reliability
- High Ampacity
- High Cycle Durability

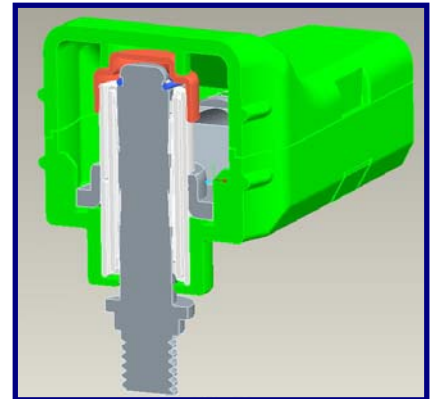
### Technical Specifications:

UL Listed Under File UL1977

Engagement Force: ~2lbs-5lbs mating insertion & ~10lbs-15lbs locking.

Separation Force: ~10lbs-15lbs.

Contact surfaces are silver plated on pin and socket. Wire crimp barrel is matte tin per industry standards.



Top: Cross section view showing mating pin.  
Bottom Left: Seven sizes, color coded crimps.  
Bottom Right: Typical upper half housing.

Wire Size	RADSOK® Size	Current Rating	SurLok™ Kit <sup>(1)</sup> Part Number	Lug Only <sup>(2)</sup> Part Number	Conductor Max Dia	Crimp Code
8 AWG	3.6mm	70 Amps	C10-647183-081	C10-647159-081	0.17 in.	Red 21
6 AWG	5.7mm	100 Amps	C10-647184-061	C10-647166-061	0.21	Blue 24
4 AWG	5.7mm	125 Amps	C10-647184-041	C10-647166-041	0.27	Gray 29
2 AWG	8.0mm	175 Amps	C10-647185-021	C10-647173-021	0.35	Green 37
1 AWG	8.0mm	200 Amps	C10-647185-011	C10-647173-011	0.38	Pink 42
1/0 AWG	10.3mm	250 Amps	C10-647186-1X1	C10-647161-1X1	0.44	Black 45
2/0 AWG	10.3mm	300 Amps	C10-647186-2X1	C10-647161-2X1	0.50	Orange 50

Pin Dia	Max Current	Part Number	Thread (male)
3.6mm.	70 Amps	C10-647175-001	M3x0.5
5.7mm	125 Amps	C10-647176-001	M5x0.8
8.0mm	200 Amps	C10-647177-001	M8x1.25
10.3mm	300 Amps	C10-647178-001	M10x1.5

Notes: (1) SurLok™ Kit contains the wire crimp lug, plus a two-piece dielectric clamshell housing. Housing is available in black color as standard. Consult factory for alternate color options.

(2) Lug only specifies the wire crimp RADSOK® SurLok™ lug, less the plastic housings.

**Amphenol**